## **PCT**

## WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7:
H04M 11/00
A1
(11) International Publication Number: WO 00/64137
(43) International Publication Date: 26 October 2000 (26.10.00)

(21) International Application Number: PCT/US00/10717

(22) International Filing Date: 20 April 2000 (20.04.00)

(30) Priority Data: 09/295,967 21 April 1999 (21.04.99) US

(71)(72) Applicant and Inventor: NABHA, Ranjeet [US/US]; 215 West 95th Street, Apt. 9J, New York, NY 10025 (US).

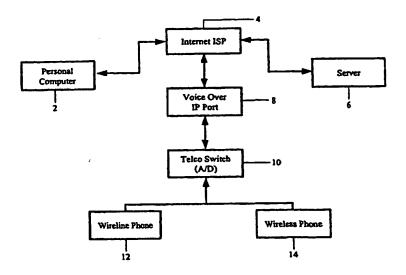
(74) Agent: STEIN, Mitchell, A.; Stein Rosenfeld King & Kaplan, L.L.P., 489 Fifth Avenue, 29th Floor, New York, NY 10017 (US). (81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

#### Published

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: METHOD AND SYSTEM FOR THE PROVISION OF INTERNET-BASED INFORMATION IN AUDIBLE FORM



#### (57) Abstract

A system and a method for the communication of Internet-based information in audible form to a telephone handset (12), having a teleo switch (10) including an audible information receiver for converting audible information received from the telephone handset (12) into digitally recognizable commands and information flowing mechanism (6) for receiving the commands and transmitting digital information in accordance therewith. The teleo switch (10) further includes an audible generator for receiving the digital information from the information flowing mechanism and converting it into an audibly recognizable form for broadcasting by the telephone handset (12). The system additionally includes a purchasing portion for communication via the Internet with other computers, and instructing them in accordance with the responsive decisions.

## FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL AM AT	Albania Armenia Austria	ES FI FR	Spain Finland France	LS LT LU	Lesotho Lithuania Luxembourg	SI SK SN	Slovenia Slovakia Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav	TM	Turkmenistan
BF	Burkina Faso	GR	Greece		Republic of Macedonia	TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Maji	TT	Trinidad and Tobago
BJ	Benin	IB	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
СН	Switzerland	KG	Kyrgyzstan	NO	Norway	zw	Zimbabwe
a	Côte d'Ivoire	KP	Democratic People's	NZ	New Zealand		
СМ			Republic of Korea	PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation	٠	
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	•	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

# METHOD AND SYSTEM FOR THE PROVISION OF INTERNET-BASED INFORMATION IN AUDIBLE FORM

### Technical Field

The present invention relates to the field of the provision of audible information to end-users via a non-PC communication device, and more particularly to the access and provision of Internet-based audio and text information to a telephone device, without the need for computer-assisted access by the end user.

#### Background Art

A wealth of information is currently available through the Internet. Typically, however, such information can only be accessed by those possessing a personal computer and Internet access via an account with an Internet service provider ("ISP").

Unfortunately, while many have developed sufficient expertise in the use of personal computers, some still remain "computer-phobic." In other words, no matter how simplified the interface, such people are unable or unwilling to develop the necessary skill level and acquire the required equipment. Some have at least acquired access and use of a non-PC communication device, such as a personal digital assistant ("PDA").

By contrast, virtually the entire commercial public has access and use of a telephone, another non-PC communication device. Also, while traveling, while some have purchased notebooks and laptops, a large percentage of the public has not, and still relies heavily on telephones.

Audio signal encoding is shown in U.S. Patent No. 5,886,276.

Descriptive semantic streaming is shown in U.S. Patent No. 20 5,890,162.

Yet, heretofore unknown is the ability to access the Internet and obtain audible downloads of information, simply by dialing a number on a telephone handset (whether a wireline or a wireless), without entry of a single command by, or use of a personal computer.

It is thus an object of the instant invention to provide Internet access via a telephone handset, and to provide for the receiving of audible instructions (verbal and DTMF) to enable interactive access to Internet-based information available on a local server (i.e., the one authorizing the access) and remote servers (i.e., all other computers available through the Internet).

3

## Disclosure of Invention

5

10

20

25

30

35

The various features of novelty which characterize the invention are pointed out with particularity in the claims annexed and forming a part of the disclosure. For a better understanding of the invention, its operating advantages, and specific objects attained by its use, reference should be had to the drawings and descriptive matter in which there are illustrated and described preferred embodiments of the invention.

The foregoing objects and other objects of the invention are achieved through a system for the communication of Internet-based information in audible form to a telephone handset in response to audible information entered into the telephone handset, having an audible information receiver for receiving the audible information from the telephone handset and converting it into computer, 15 digitally-recognizable commands; bidirectional, information flowing mechanism for receiving the commands and transmitting digital information in accordance therewith; an audible information generator for receiving the digital information and converting it into an audibly recognizable form for broadcast by the telephone handset; in which the information flowing mechanism provides streaming text, music, news, stock information, horoscopes, communications, voice-mail, email, notices, bulletins, station transmissions, audio books, and archived radio programming. The information flowing mechanism further includes purchasing queries for querying for a purchase decision, receiving responsive decisions via audible responses provided to the telephone handset, and execution in accordance with the responsive decisions. system additionally includes a purchasing portion for communication via the Internet with other computers, and instructing them in accordance with the responsive decisions. Also disclosed is a method for audible communication to a telephone handset, in which audible command instructions are received, converted into a digital stream, analyzed and parsed for a URL command line, a connection via the Internet is made to the computer having that URL, digital information is received from that computer, converted to audible

4

form, and broadcast back to the telephone handset. The method also includes querying and transmitting purchasing decisions.

Other features of the present invention will become apparent from the following detailed description considered in conjunction with the accompanying drawings. It is to be understood, however, that the drawings are designed solely for purposes of illustration and not as a definition of the limits of the invention, for which reference should be made to the appended claims.

5

## Brief Description of Drawings

10

In the drawings, wherein similar reference characters denote similar elements through the several views:

- FIG. 1 is an overall, diagrammatical system summary of the 5 preferred embodiment of the instant invention;
  - FIG. 2 is a diagrammatical representation of the stages of system initialization;
  - FIG. 3 is a diagrammatical representation of the steps involved in activation and usage of the system, in accordance with a preferred embodiment;
  - FIG. 4 is a diagrammatical representation of the local database streaming with purchase option, in accordance with an embodiment of the subject invention; and
- FIG. 5 is a diagrammatical representation of the remote database streaming with purchase option, in accordance with an embodiment of the subject invention.

6

## Mode(s) for Carrying out the Invention

25

In accordance with the subject invention, and with particular reference to FIG. 1, personal computer 2 can be used in known form to access an Internet ISP 4, and thereby engage server 6, in which resides software and hardware to enable the instant invention. It should be recognized by one of ordinary skill in the art that the hardware necessary to implement the subject invention is commercially available.

As explained in greater detail with reference to FIG. 2, 10 below, personal computer 2 is typically used for initialization of the system and method that is the subject of the instant invention. Of novel design, however, is the ability for wireline phone 12 and wireless phone 14 to be used as an interface to provide information access and retrieval from the Internet via server 6. particular, phones 12 and 14 are used to call a telephone number 15 specific to voice over IP port 8 which is engaged by Telco switch 10 to enable communication to an ISP 4. Telco switch 10 provides analog and digital conversion, depending upon whether the source is analog (as in a typical wireline phone) or digital (as in a typical wireless phone). Of course, it is recognized that some 20 wireline phones are digital, and some wireless phones are analog. In any event, the switch recognizes the device to which it is accommodates devices accordingly, those and speaking, transmitting the signal to port 8.

In the preferred embodiment, a customer or user of the instant invention will be given a telephone number to access the inventor's ISP, and will simply call that number from any telephone, at any time.

Upon calling that number, the call is routed to server 6

(which contains relevant portions of the inventive proprietary method and system), and as shown in FIG. 2, upon a first such call, a number of steps are implemented to allow future access to the remainder of the inventive system. FIG. 2 shows the stages involved in initialization and creation of a user profile and password. In an alternative embodiment, initialization is provided by PC 2, rather than by telephone 12, 14.

7

In either event, first step 16 allows the user to enter and determine initialization information. Initially, the user creates a user profile of preferences 18, and creates a password 20 to provide security for future access. In creating a special user 5 profile, the user is prompted to preselect information categories 22, and such preselection is confirmed to user by step 24. other words, the system has a number of predetermined categories of information typically relevant to a user, including, e.g., text, music, news, stock information, horoscopes, communications, voicemail, email, notices, bulletins, radio-station transmissions, audio The user can preselect books, and archived radio programming. those categories, and amongst such categories can then select specific information needed.

10

20

25

For example, assuming a frequent traveler who wants to know 15 current stock prices for AOL, his/her horoscope, and 22 minutes of WINS (1010 on the AM dial, out of New York City which "gives you the world in 22 minutes"), as well as all email that he/she has received, can preselect such categories and subcategories in initialization phase shown in FIG. 2. Thereafter, as more specifically described hereinbelow, the user can call the designated telephone number from anywhere in the world, enter the password, and receive (by streaming for audio, and by text to voice synthesis for text files) all such information, and can listen through the telephone handset.

With more specific reference to FIG. 3, after initialization under FIG. 2, the user employs telephone 12, 14 to call the designated ISP. Thereafter, he is prompted by step 26 to confirm the identification code entered under the initialization steps. Should confirmation not occur, the call is terminated, or other appropriate measures are taken. Should confirmation occur, the 30 user'is prompted, under a preferred embodiment, to select services sought from information category preselection (see step 22 in FIG. 2) via step 28. After such selection, bidirectional information flow 30 occurs. Flow 30 is specifically configured to enable 35 access to local database 34, ad overlay with purchase queries 36, and remote database(s) 38, as more fully described below.

8

In particular, where the user has designated information that has been downloaded and stored in the local server computer that has verified his i.d., then information is transferred from the local database 34 through the flow 30 to the telephone output 5 (bidirectional) 40. In other words, the information is accessed, translated into audio format, and rebroadcast in streaming format to the user via his telephone handset. Further detail for these steps is shown in FIG. 4, and described in greater detail in connection therewith.

Additionally, where the user has requested information that 10 is stored remotely, i.e., on one or more server computers accessible via the Internet, then bidirectional flow 40 engages such remote databases 38, and receives the information and rebroadcasts it to the user, as more fully described in connection 15 with FIG. 5, below.

Additionally, the system provides ad overlay with purchase query 36. In this embodiment, during any period of delay, whether designed or whether as a consequence of input/output time and handshake engagement with one or more remote databases, or whether just created for the purpose of broadcasting advertisements, advertisements are broadcast to the user via flow 30 to telephone In this manner, the user can be given direct advertisements (in conformity with his user profile, or in any other manner deemed suitable). Such advertisements can also prompt 25 for purchase decisions in the same manner as purchase decisions are shown in FIG.'s 4 and 5.

20

30

Of significance are additional connections 32, as shown in In this manner, the user via telephone 12, 14 can FIG. 3. designate and speak to other callers who may be on the system at the same time, or can talk to other telephones or exchanges, or can access voicemail systems and receive messages, or can access email With respect to email accounts, in particular, the system provides the ability to take text email that has been received for the user, and broadcast it to him via speech synthesis, so he/she may listen to email messages originally sent in text form. Likewise, the user can send an email message to

10

25

30

35

another by providing, audibly, the email address (or selecting from a preestablished list, as the case may be). Thereafter, the user is prompted to speak the message. The system digitizes the spoken words, and transcribes such words into a text or voice file for 5 email broadcast to the recipient, in the normal course. Likewise, advertisements, text or audio, may be attached to the email message of the recipient.

9

It should be appreciated that all information commences from the telephone handset in audible form. In other words, the user enters verbal commands into the telephone, in the same manner as ordinary telephone usage. Such audible information must be digitized for access by the computer system in which resides relevant portions of the instant methods. Information gathered by the instant invention is received in digital form. 15 be streamed to the voice over IP port 8 (see FIG. 1) and then via the telco switch 10 produced in audible form by phones 12, 14. Where the information is in text format, then speech synthesis is used. Where the information is in audio format, it is nonetheless digitized for transmission through the Internet and then converted 20 into audible form for broadcast by the telephone handset. instructions are provided by the telephone handset either in audible form or by DTMF tones, and more often, the former. tones are engaged by the user's pushing of buttons on the telephone's numeric pad. Where audible instructions are provided, voice recognition methods are employed. In this manner, subject to the logic and other elements of the instant invention, audible information is converted to digital form, and digital information is converted to audible form for bidirectional output to the By bidirectional, the inventor means that telephone 12, 14. provided and received, be both information can simultaneously, and dependent upon the hardware limitations (if any) possessed by telephone handset 12, 14.

In further detail, FIG. 4 shows the elements of the process by which information that is "in-house" or "local" is provided, i.e., information that is resident on the computer server 6 that houses the relevant portions of the instant invention. In this

embodiment, telephone input (also called, synonymously telephone handset and telephone) 12, 14 is used to provide audible commands 42(a) voice recognition is employed to spoken by the user. translate such commands into digital format, and such commands are 5 provided to the in-house database setting forth the selection made by the user, via step 44. Thereafter, transmission stage 46 is employed. Where the output is audio, it is sent to the telephone 12, 14 for output. Where the output is text, it is sent to a text to speech synthesizer via step 42(b) and thereafter output, in streaming form, to the telephone output 12, 14. In this manner, 10 audio information (e.g., music in MP3 or other format) can be preselected and provided, and text information (e.g., stock quotes) can be turned into audible speech and thus heard in recognizable form by the user.

FIG. 4 also shows purchase query 50. Such audio or text 15 information is passed to the user in the same method as described hereinabove. This allows for the user to be queried as to whether he/she wants to purchase certain items. The response, provided via telephone 12, 14 and text/speech synthesizer and voice recognition for response step 42(c), is translated into a purchase decision, 20 and that decision is processed and the purchase (including, where applicable, virtual dollars, cybercash or other suitable form of e-commerce, including credit card authorization) and delivery, subsequently occur in the normal course.

25

FIG. 5 shows access via the invention to remote database servers, i.e., other computers available through the Internet. (or DTMF, 14 takes voice particular, telephone input 12, touch/tone) commands through voice recognition stage 42(a), determines a URL request, and URL selection through step 52, access 30 via the Internet the appropriate computer having that URL command line, here called Remote Database Server 54, which broadcasts, in accordance with command requests, responsive information. responsive information is received and retransmitted via step 56, which also listens for purchase queries, discussed hereinbelow. Where the output is text, the text is synthesized into speech via 35 step 42(b) for audible output to the telephone output 12, 14.

11

Where the output is in audio form, it is rebroadcast via step 53 to the telephone output 12, 14.

With respect to the purchase query shown in FIG. 5, where the Remote Database Server 54 provides a purchase option (e.g., of 5 goods, services and the like), the system provides that option to the user at his telephone 12, 14, in audible form. The purchase query 58 is synthesized, where necessary, via step 42(c), the prompts are given in audible form to the user at his telephone handset 12, 14, the user indicates his response either audibly or by DTMF touchtones, where necessary the audible response is digitized by voice recognition methods, and such digitized response is broadcast back to the Remote Database Server 54 in order to complete the purchase in normal fashion.

10

While there have been shown, described and pointed out 15 fundamental novel features of the invention as applied to preferred embodiments thereof, it will be understood that various omissions and substitutions and changes in the form and details of the device illustrated and in its operation may be made by those skilled in the art without departing from the spirit of the invention. 20 the intention, therefore, to be limited only as indicated by the scope of the claims appended hereto.

12

### Claims

15

35

I claim:

1. A method for the communication of Internet-based information in audible form to a telephone handset in response to audible information entered into the telephone handset, comprising:

- (a) receiving via Internet transmission, user-provided profile information and user-specified category preselection information in response to profile-defining queries;
- (b) creating a user-specific profile in accordance with 10 said user-provided profile information and user-specified category preselection information;
  - (c) receiving via Internet transmission from the telephone handset, a telephone-generated, user activation command sequence in audible form from the telephone handset, said sequence comprising user identification confirmation information and user-requested information specified from said user-specified category preselection information;
  - (d) comparing said command sequence against said userspecific profile;
- 20 (e) generating a go/no-go signal as a result of said comparison, such that:
  - (a) where said signal is no-go, communication is terminated; and
    - (b) where said signal is go:
- 25 (a) transmitting to said telephone handset in audible form information in accordance with said user-selection specification information.
- 2. The method of claim 1, wherein said transmitted 30 information is Internet-generated.
  - 3. The method of claim 2, wherein said Internet-generated information is selected from the group consisting of text, music, news, stock information, horoscopes, communications, voice-mail, email, notices, bulletins, radio-station transmissions, audio books, and archived radio programming.

13

- 4. The method of claim 1, wherein said transmitted information is locally-generated.
- 5. The method of claim 4, wherein said locally-generated information is archival in origin.
- 6. The method of claim 1, wherein said transmitted information comprises information generated by other telephone handsets.

5

25

- 7. The method of claim 1, wherein said transmitted information comprises voice-mail information.
- 10 8. The method of claim 1, further comprising, where said signal is go, receiving further audible command sequences from said telephone handset.
  - 9. The method of claim 8, wherein said receiving further command sequences comprises:
- 15 (a) querying for purchase options at said telephone handset in audible form;
  - (b) receiving audible responses in response to said queries;
- (c) completing purchases in accordance with said 20 received audible responses.
  - 10. The method of claim 1, further comprising transmitting advertising information to said telephone handset.
  - 11. The method of claim 1, further comprising converting said telephone handset generated audible information into digitally-recognizable information.
  - 12. The method of claim 1, wherein said transmission to said telephone handset comprises, in advance of said transmission, converting digitally-recognizable information into audibly-recognizable information.
- 30 13. A system for the communication of Internet-based information in audible form to a telephone handset in response to audible information entered into the telephone handset, comprising:
  - (a) audible information receiving means for receiving the audible information from the telephone handset, converting said information into computer, digitally-recognizable commands;

- (b) bidirectional, information flow means for receiving said commands and transmitting digital information in accordance therewith;
- (c) audible information generating means for receiving 5 said digital information and converting said digital information into an audibly recognizable form for broadcast by said telephone handset;
- (d) wherein, said information flow means provides streaming text, music, news, stock information, horoscopes,10 communications, voice-mail, email, notices, bulletins, radiostation transmissions, audio books, and archived radio programming.
  - 14. The system of claim 13, wherein said information flow means further includes purchasing queries for querying for a purchase decision, receiving responsive decisions via audible responses provided to said telephone handset, and execution in accordance with said responsive decisions.

- 15. The system of claim 14, further comprising, purchasing means for communication via the Internet with at least one server computer, and instructing said at least one server computer in accordance with said responsive decisions.
  - 16. The system of claim 13, wherein said information flow means further comprises transmission/receiving means for communicating via the Internet with at least one server computer, receiving information flow from said at least one or more server computers, and retransmitting said received information to said audible information generating means.
  - 17. A method for the communication of Internet-based information in audible form to a telephone handset in response to audible information entered into the telephone handset, comprising:
- 30 (a) receiving from the telephone handset, audible command instructions;
  - (b) converting said audible command instructions into a digitally-recognizable command sequence;
- (c) analyzing said digitally recognizable command 35 sequence and parsing therefrom at least one URL command line;

- (d) connecting via the Internet to at least one computer having said at least one URL command line;
- (e) receiving from said at least one connected computer digital information;
- 5 (f) converting said digital information into audible information; and
  - (g) broadcasting said converted, audible information to said telephone handset in accordance with said audible command instructions.
- 10 18. The method of claim 17, further comprising the steps of:
  - (a) receiving query requests for purchase decisions from said at least one connected computer;
    - (b) converting said query requests into audible queries;
- 15 (c) broadcasting said audible queries to said telephone
  handset;
  - (d) receiving audible responses to said audible queries from said telephone handset;
- (e) converting said received audible responses into a20 digitally-recognizable form; and
  - (f) transmitting said converted audible responses to said at least one connected computer in response to said received query requests.

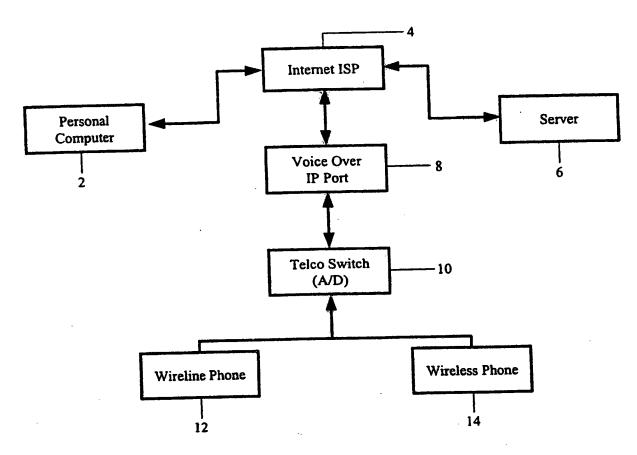


Fig. 1

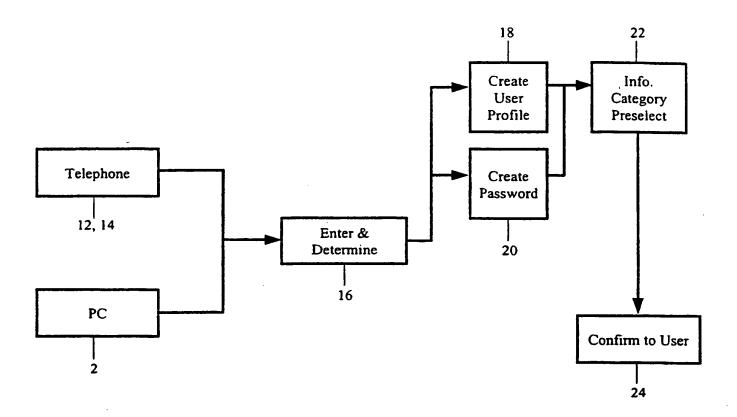
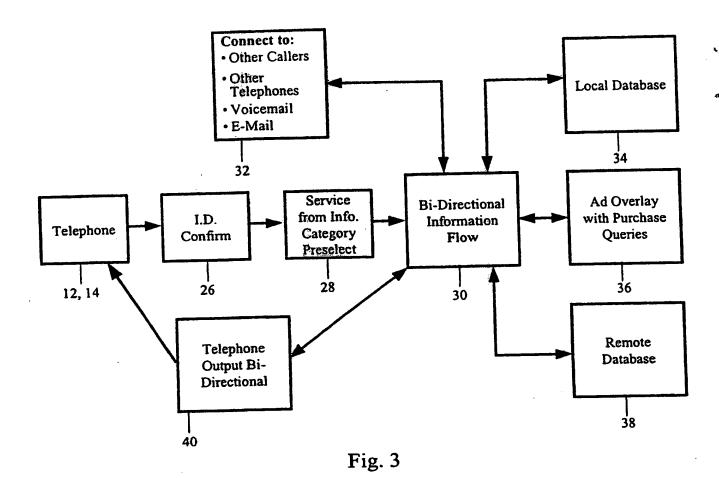


Fig. 2



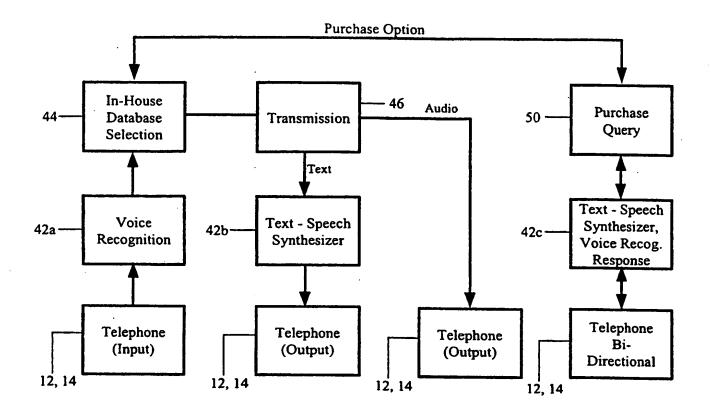


Fig. 4

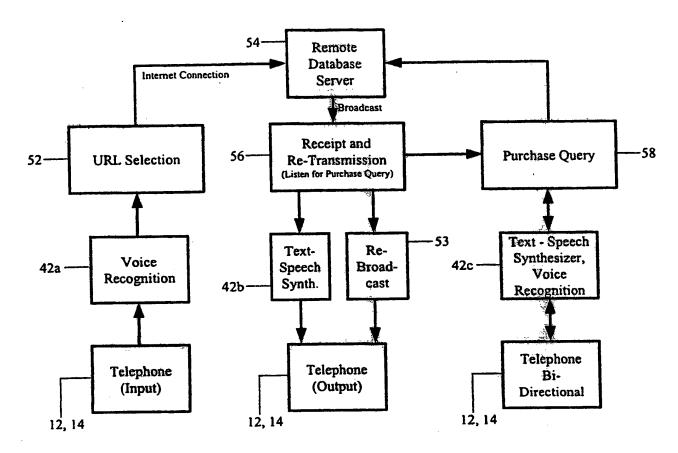


Fig. 5

## INTERNATIONAL SEARCH REPORT

International application No. PCT/US00/10717

A. CLASSIFICATION OF SUBJECT MATTER .									
IPC(7) :H04M 11/00 US CL :379/90.01									
According to International Patent Classification (IPC) or to both national classification and IPC									
B. FIELDS SEARCHED									
Minimum documentation searched (classification system followed by classification symbols)									
U.S. : 379/90.01, 88.01, 88.02, 88.04, 88.13, 88.14, 88.17, 88.22, 88.23, 93.01, 93.02, 93.03, 93.12, 93.15, 93.24									
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched									
Electronic d	data base consulted during the international search (na	me of data base and, where practicable,	search terms used)						
			, , , , , , , , , , , , , , , , , , , ,						
C. DOCUMENTS CONSIDERED TO BE RELEVANT									
Category*	Citation of document, with indication, where ap	propriate, of the relevant passages	Relevant to claim No.						
X 	US 5,799,063 A (KRANE) 25 August col. 6 line 39.	1, 2, 4-8, 11-12, 17							
Y			3, 9-10, 13-16, 18						
Y	US 5,799,285 A (KLINGMAN) 25 August 1998, col. 12 line 6 3, 9-10, 13-16, 1 through col. 13 line 18)								
	•		·						
	<u> </u>								
Purther documents are listed in the continuation of Box C. See patent family annex.									
•	pecial categories of cited documents:	"T" later document published after the in- date and not in conflict with the app	lication but cited to understand						
to	cument defining the general state of the art which is not considered be of particular relevance	the principle or theory underlying the "X" document of particular relevance; the							
	rlier document published on or after the international filing date ocument which may throw doubts on priority claim(s) or which is	considered novel or cannot be considered novel or cannot be considered to the consid							
cit	ted to establish the publication date of another citation or other ecial reason (as specified)	"Y" document of particular relevance; the considered to involve an inventive	he claimed invention cannot be						
	ocument referring to an oral disclosure, use, exhibition or other	combined with one or more other sur being obvious to a person skilled in	ch documents, such combination						
	cument published prior to the international filing date but later than e priority date claimed	*&* document member of the same patent family							
	actual completion of the international search	Date of mailing of the international search report							
22 JUNE	2000	<b>22</b> AUG 200	00						
Name and t	mailing address of the ISA/US oner of Patents and Trademarks	Authorized officer							
Box PCT	n, D.C. 20231	Authorized officer  CURTIS A. KUNTE  Telephone No. (703) 305-4708	so zogar						
Facsimile N		Telephone No. (703) 305-4708							

inis PAGE BLANK (USPTO)

## (19) World Intellectual Property Organization International Bureau



## - 1 CARLO DO COMO DE CONTROL DE COMO D

## (43) International Publication Date 26 October 2000 (26.10.2000)

#### **PCT**

# (10) International Publication Number WO 00/64137 A1

(51) International Patent Classification7: H04M 11/00

(21) International Application Number: PCT/US00/10717

(22) International Filing Date: 20 April 2000 (20.04.2000)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 09/295.967

21 April 1999 (21.04.1999) US

(71) Applicant and

(72) Inventor: NABHA, Ranjeet [US/US]; 215 West 95th Street, Apt. 9J, New York, NY 10025 (US).

(74) Agent: STEIN, Mitchell, A.; Stein Rosenfeld King & Kaplan, L.L.P., 489 Fifth Avenue, 29th Floor, New York, NY 10017 (US).

(81) Designated States (national): AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

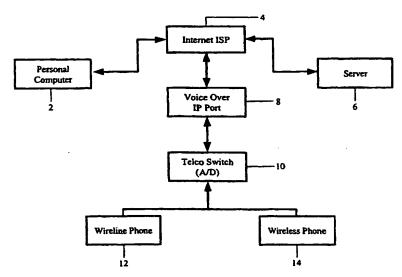
#### Published:

- With international search report.
- With amended claims.

Date of publication of the amended claims: 14 December 2000

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND SYSTEM FOR THE PROVISION OF INTERNET-BASED INFORMATION IN AUDIBLE FORM



(57) Abstract: A system and a method for the communication of Internet-based information in audible form to a telephone handset (12), having a teleo switch (10) including an audible information receiver for converting audible information received from the telephone handset (12) into digitally recognizable commands and information flowing mechanism (6) for receiving the commands and transmitting digital information in accordance therewith. The teleo switch (10) further includes an audible generator for receiving the digital information from the information flowing mechanism and converting it into an audibly recognizable form for broadcasting by the telephone handset (12). The system additionally includes a purchasing portion for communication via the Internet with other computers, and instructing them in accordance with the responsive decisions.

VO 00/64137 A

3.

#### **AMENDED CLAIMS**

16

[received by the International Bureau on 20 October 2000 (20.10.00): original claims 1-18 amended (5 pages)]

- 1. A method for the communication of Internet-based information in audible form to a telephone handset from a remotely located. Internet-based web server running standard Internet communication protocols in response to audible information entered into the telephone handset, comprising:
- (a) receiving via Internet transmission, userprovided profile information and user-specified category 10 preselection information in response to profile-defining queries;
- (b) creating on a local Internet computer a userspecific profile in accordance with said user-provided profile information and user-specified category preselection information:
- (c) receiving on said local Internet computer from the telephone handset, a telephone-generated, user activation command sequence in audible form from the telephone handset, said sequence comprising user identification confirmation information and user-requested information specified from said user-specified category preselection information;
  - (d) comparing on said local Internet computer said command sequence against said user-specific profile;
- (e) generating a go/no-go signal as a result of said 25 comparison, such that:
  - where said user identification confirmation information fails to conform with said user-specific profile, said signal is nogo, and communication is terminated; and
  - where said user identification confirmation information conforms with said userspecific profile, said signal 1s go:
    - (a) generating a request from said local Internet computer to said remotely located. Internet-based web server for data stream transmission, receiving on

5

10

15

said local Internet computer computer data stream transmitted from said remotely located, Internet-based web server in accordance with said request and standard Internet communication protocols and transmitting from said local Internet computer to said telephone handset in audible form information in accordance with said user-selection specification information such that the receipt of said data stream by said Internet computer from said remotely located, Internet-based web server overlaps in time with said transmission said to telephone handset.

- 2. The method of claim 1, wherein said transmitted information is Internet-generated.
- 3. The method of claim 2, wherein said Internet-generated information is selected from the group consisting of text, music, news, stock information, horoscopes, communications, voice-mail, email, notices, bulletins, radio-station transmissions, audio books, and archived radio programming.
- 4. The method of claim 1, wherein said transmitted information is locally-generated by the local Internet computer via a text to speech synthesizer.
  - 5. The method of claim 4, wherein said locally-generated information is archival in origin.
- 30 6. The method of claim 1, wherein said transmitted information comprises information generated by other telephone handsets.
  - 7. The method of claim 1, wherein said transmitted information comprises voice-mail information.

Ç

- 8. The method of claim 1, further comprising, where said signal is go, receiving further audible command sequences from said telephone handset.
- 9. The method of claim 8, wherein said receiving further 5 command sequences comprises:
  - querying for purchase options at said telephone handset in audible form;
  - 2. receiving audible responses in response to said queries;
- 3. completing purchases in accordance with said received audible responses.
  - 10. The method of claim 1, further comprising transmitting advertising information to said telephone handset.
- 11. The method of claim 1, further comprising converting 15 said telephone handset generated audible information into digitally-recognizable information.
- 12. The method of claim 1, wherein said transmission to said telephone handset comprises, in advance of said transmission, converting digitally-recognizable information into 20 audibly-recognizable information.
  - 13. A system for the communication of Internet-based information in audible form to a telephone handset in response to audible information entered into the telephone handset. comprising:
- 25 (a) audible information receiving means for receiving the audible information from the telephone handset, converting said information into computer, digitally-recognizable commands;
- (b) bidirectional, information flow means for receiving said commands and transmitting digital information in accordance therewith and standard Internet communication protocols, wherein said bidirectional, information flow means comprises a local Internet computer for generating a request to a remotely located, Internet-based web server for data stream transmission in accordance with standard Internet protocols,
- 35 followed by receipt on said local Internet computer of a data

stream (having first and subsequent packets) in accordance with the request;

- (c) audible information generating means for receiving said data stream and converting said data stream into an audibly recognizable form for broadcast to said telephone handset;
- (d) wherein, said information flow means provides streaming text, music, news, stock information, horoscopes, communications, voice-mail, email, notices, bulletins, radio-10 station transmissions, audio books, and archived radio programming by converting first packets of said data stream concurrently with receipt of subsequent packets of said data stream.
- 14. The system of claim 13, wherein said information flow 15 means further includes purchasing queries for querying for a purchase decision, receiving responsive decisions via audible responses provided to said telephone handset, and execution in accordance with said responsive decisions.
- 15. The system of claim 14, further comprising, purchasing 20 means for communication via the Internet with at least one server computer, and instructing said at least one server computer in accordance with said responsive decisions.
- 16. The system of claim 13, wherein said information flow means further comprises transmission/receiving means for 25 communicating via the Internet with at least one server computer, receiving information flow from said at least one or more server computers, and retransmitting said received information to said audible information generating means.
- 17. A method for the communication of Internet-based 30 information in audible form to a telephone handset in response to audible information entered into the telephone handset, comprising:
  - (a) receiving from the telephone handset, audible command instructions;
- 35 (b) converting said audible command instructions into a digitally-recognizable command sequence;

- (c) analyzing said digitally recognizable command sequence and parsing therefrom at least one URL command line;
- (d) connecting via the Internet to at least one computer having said at least one URL command line;
- (e) receiving from said at least one connected computer first and subsequent packets of digital information comprising a stream in accordance with standard Internet communication protocols;
- (f) converting said first packets of said digital 10 information stream into audible information while simultaneously receiving subsequent packets, and thereupon converting said subsequent packets; and
- (g) broadcasting said converted, audible information from said first packets to said telephone handset while converting said subsequent packets, and then broadcasting said converted audible information from said subsequent packets, all in accordance with said audible command instructions and in continuous form.
- 18. The method of claim 17, further comprising the steps 20 of:
  - (a) receiving query requests for purchase decisionsfrom said at least one connected computer;
  - (b) converting said query requests into audible queries;
- (c) broadcasting said audible queries to said telephone handset;
  - (d) receiving audible responses to said audible queries from said telephone handset;
- (e) converting said received audible responses into 30 a digitally-recognizable form; and
  - (f) transmitting said converted audible responses to said at least one connected computer in response to said received query requests.